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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,036	02/26/2004	Tzu-Jian Yang	3313-1121P	2926
2292 7590 01/02/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER PHAN, HANH	
			ART UNIT	PAPER NUMBER
			2613	
SHORTENED STATUTORY PERIOD OF RESPONSE		NOTIFICATION DATE	DELIVERY MODE	
3 MONTHS		01/02/2007	ELECTRONIC	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 01/02/2007.

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mailroom@bskb.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/786,036	<b>Applicant(s)</b> YANG ET AL.	
	<b>Examiner</b> Hanh Phan	<b>Art Unit</b> 2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10-14 is/are allowed.
- 6) ☒ Claim(s) 1-9 and 15-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Priority*

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Dyke et al. (US Patent No. 6,351,582).

Regarding claim 1, referring to Figure 2, Dyke et al. teaches an Ethernet passive optical network (EPON) ring comprising:

an optical ring (Fig. 2) with a first end and a second end;

an optical line termination (OLT)(i.e., OLT 200, Fig. 2), which is coupled to the first end and the second end of the optical ring;

a plurality of optical network units (ONU) (i.e., ONUs 264 and 263, Fig. 2), each of which is connected to the optical ring between the first end and the second end, thus defining a plurality of intersections on the optical ring; and

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a plurality of three-port passive optical splitting modules (i.e., drop points 223 and 224, Fig. 2), each of which is installed at one of the intersections and contains three optical ports;

wherein the three optical ports in each three-port passive optical splitting module are connected using three two-way passages to allow the ONU to transmit/receive data via the first end and the second end of the optical ring to/from the OLT (i.e., Fig. 2, col. 5, lines 16-67 and col. 6, lines 1-49).

Regarding claim 2, Dyke et al. further teaches each of the three-port passive optical splitting modules contains three sub-fibers and three optical splitters so that the optical splitters provide the three optical ports and the three sub-fibers couple to the three optical splitters to form the passages (i.e., Fig. 2, col. 5, lines 16-67 and col. 6, lines 1-49).

Regarding claim 3, Dyke et al. further teaches each of the three-port passive optical splitting modules is a plane-wave waveguide (i.e., col. 5, lines 60-64).

Regarding claim 4, Dyke et al. further teaches the OLT contains a main server and a backup server connecting to each other, the main server connecting to the first end of the optical ring and the backup server connecting to the second end of the optical ring (i.e., Fig. 2, col. 5, lines 16-67 and col. 6, lines 1-49).

Regarding claim 5, Dyke et al. further teaches the backup server only backs up data in its normal state and uses the backup data for rescue purposes when the optical network breaks (i.e., Fig. 2, col. 5, lines 16-67 and col. 6, lines 1-49).

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Regarding claims 6, Dyke et al. further teaches when there is a breaking point on the optical ring the backup server enables the downstream ONU to transmit/receive data (i.e., Fig. 2, col. 5, lines 16-67 and col. 6, lines 1-49).

Regarding claim 7, Dyke et al. further teaches when there is a breaking point on the optical ring the OLT determines the location of the breaking point according to the data of the ONU received via the first end and the second end (i.e., Fig. 2, col. 5, lines 16-67 and col. 6, lines 1-49).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 8, 9 and 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dyke et al. (US Patent No. 6,351,582) in view of Prior Art Figure 4.

Regarding claims 8, 9 and 15-19, Dyke et al. teaches all the aspects of the claimed invention except fails to teach a wavelength division multiplexing (WDM) system, which has a double-port end and a single-port end, an optical receiving unit, which connects to the double-port end of the WDM system; a coupler, which connects to the double-port end of the WDM system; an optical transmitting unit, which connects to the coupler for transmitting signals; and a carrier sensor, which connects to the coupler for receiving signals thereby controlling the timing for the optical transmitting

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unit to send signals to the optical ring. However, Prior Art Figure 4 teaches a wavelength division multiplexing (WDM) system 144, which has a double-port end and a single-port end, an optical receiving unit 143, which connects to the double-port end of the WDM system; a coupler 145, which connects to the double-port end of the WDM system; an optical transmitting unit 147, which connects to the coupler 145 for transmitting signals; and a carrier sensor 146, which connects to the coupler for receiving signals thereby controlling the timing for the optical transmitting unit to send signals to the optical ring. Based on this teaching, it would have been obvious to one having skill in the art at the time the invention was made to incorporate the wavelength division multiplexing (WDM) system, which has a double-port end and a single-port end, an optical receiving unit, which connects to the double-port end of the WDM system; a coupler, which connects to the double-port end of the WDM system; an optical transmitting unit, which connects to the coupler for transmitting signals; and a carrier sensor, which connects to the coupler for receiving signals thereby controlling the timing for the optical transmitting unit to send signals to the optical ring as taught by the Prior Art Figure 4 in the system of Dyke et al. One of ordinary skill in the art would have been motivated to do this since allowing avoiding the collisions.

***Allowable Subject Matter***

6. Claims 10-14 are allowed.

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***Conclusion***

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Phan whose telephone number is (571)272-3035.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan, can be reached on (571)272-3022. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-4700.

  
**HANH PHAN**  
**PRIMARY EXAMINER**